



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

EPA Region 5 Records Ctr.



388724

REPLY TO THE ATTENTION OF:

31 MAR 2011

**MEMORANDUM**

**SUBJECT:** **ACTION MEMORANDUM:** Request for an Emergency Removal Action at South Mozart Mercury Spill, Chicago, Cook County,, Illinois (Spill ID #B5ZL)

**FROM:** Brian Schlieger, On-Scene Coordinator  
Emergency Response Branch 1 – Section 1

**THRU:** Charles Gebien, Section Chief  
Emergency Response Branch 2, Section 4

**TO:** Linda Nachowicz, Chief  
Emergency Response Branch 2

**I. PURPOSE**

The purpose of this memorandum is to request and document your approval to expend up to \$30,040 to conduct emergency response actions at the South Mozart Mercury Spill (the Site) in Chicago, Cook County, Illinois. The response actions proposed herein are necessary in order to mitigate threats to public health, welfare, and the environment posed by the presence of mercury at the Site. On November 15, 2010, a resident at 1 S. Mozart Street in Chicago, Cook County, Illinois reported a mercury release from a broken blood pressure cuff. The resident reported the spill to the Illinois Department of Public Health (IDPH). Subsequently, IDPH called the release into the national response center. The release occurred in the bathroom, but elevated mercury vapor levels were observed on the first, second, and basement floors of the home. On November 18, 2010, U.S. EPA was informed of a second residence, at S. Justine Street Chicago, Cook County, Illinois, where the broken blood pressure cuff had originally been discovered. On November 15, 2010, Emergency Response Branch 2 Chief, Linda Nachowicz, approved \$25,000 to initiate the cleanup.

**II. SITE CONDITIONS AND BACKGROUND**

CERCLIS ID # IL000510523

## A. Site Description

### 1. Removal site evaluation

The response action mitigated Site conditions by abating or eliminating the immediate threat posed to public health and/or the environment by the presence of the hazardous substances. The uncontrolled conditions of the hazardous substances present at the Site require that this action be classified as an emergency action. This response action was conducted in accordance with Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC § 9604(a)(1).

### 2. Physical location

The South Mozart Mercury Spill Site is located at two separate residences within residential neighborhoods at South Mozart Street and South Justine Street, Chicago, Cook County, Illinois 60609. The geographical coordinates are 41° 47' 55.51"N; 87° 41' 42.46"W, and 41° 48' 20.66"N ; 87° 39' 47.96"W, respectively.

### 3. Site characteristics

The Site includes two residences: 1) South Mozart Street is located in a residential neighborhood approximately one block south of 51st and one block west of California and 2) South Justine Street is also in a residential neighborhood one-half block east of Ashland Ave, and one block south of 47th. Both residences contained multiple apartment units.

### 4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Uncontrolled elemental mercury and mercury vapor were present at the both residences. These are considered hazardous substances and exhibit the RCRA characteristic toxicity for mercury (D009) under 40 C.F.R. Part 261. The blood pressure cuff which was the source of the mercury was abandoned at the residence on South Justine in an unsecured manner.

### 5. NPL Status

There are no nationally significant or precedent setting issues with this Site and the Site is not on the National Priorities List (NPL). The response required two on-site working days to complete.

## 6. Maps, pictures, and other graphic representations

Figure 1 illustrates the physical location of the two residences associated with the site.

## 7. Environmental Justice Analysis

The area surrounding the South Mozart Street Site was screened for Environmental Justice (EJ) concerns using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to EPA Region 5. The South Mozart Street Site is in census tracts with scores of 1 and 2 (Figure 2). Therefore, Region 5 considers this site to be a high-priority potential EJ area of concern.

### **B. Other Actions to Date**

#### 1. Previous Actions

On November 15, 2010, the Illinois Department of Community Health (IDPH) received a call from one the residents of [redacted] South Mozart, stating that a mercury release had occurred at the residence. The source of the mercury was a sphygmomanometer (blood pressure cuff). IDPH then called the spill into the National Response Center (Incident Report Number 959910). IDPH then requested assistance from U.S. EPA in screening the residence for confirmation of the report. On the evening of November 15, U.S. EPA conducted a screening of the residence and confirmed the presence of elemental mercury and mercury vapor approximately 50 times greater than the action level of 1,000 nanograms per meter cubed ( $\text{ng}/\text{m}^3$ ). The residents living in the [redacted] South Mozart residence voluntarily evacuated the residence after confirmation of the presence of mercury on the evening of November 15.

U.S. EPA later discovered that the origin of the blood pressure cuff was the residence located at [redacted] South Justine. A former resident abandoned the blood pressure cuff after moving out of the apartment unit. The former resident could not be located. Screening of the South Justine residence on November 19, 2010 revealed the presence of elemental mercury and elevated mercury vapor readings above action levels. The apartment unit located at [redacted] South Justine was vacant, although other residential units were occupied in the building and contained elevated mercury vapor concentrations.

## 2. Current Actions

On November 16, U.S. EPA mobilized Emergency and Rapid Response Services (ERRS) and Superfund Technical Assessment and Response Team (START) contractors to initiate an Emergency Response Removal Action at the Site. Contractors collected the elemental mercury with mercury vacuums and removed the contaminated materials (carpeting, tile, clothing, and shoes) from both residences. The contaminated material was placed in drums and staged in a secured garage pending disposal. ERRS conducted several cycles of heating and venting until breathing zone mercury vapor concentrations were observed to be below 1,000 ng/m<sup>3</sup> in both homes. On December 20, 2010, Waste Management transported the waste to the Mercury Waste Inc. facility in Union Grove, Wisconsin for treatment and disposal in accordance with EPA off-site rule, 40 C.F.R. § 300.440.

### C. State and Local Authorities' role

#### 1. State and local actions to date

IDPH and the Chicago Department of Public Health (CDPH) provided technical assistance and endorsement of the Agency for Toxic Substances and Disease Registry (ATSDR) action level for mercury vapor concentration of 1,000 ng/m<sup>3</sup> for the Site. Additionally, IDPH and CDPH provided access to medical professionals and analytical services to assist in the assessment of potential exposure to the children living in the homes.

#### 2. Potential for continued State/local response

All response actions have been concluded in this case.

### **III. THREATS TO PUBLIC HEALTH, WELFARE, OR TO THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

The conditions at the Site presented a release or a threatened release of a CERCLA hazardous substance, and met the criteria for an emergency response provided for in the National Contingency Plan (NCP), 40 C.F.R. § 300.415 (b) (2). These criteria included the following:

- i   √   YES    NO Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

The spill occurred at residential properties. Small children and women of child bearing age lived in both residences in which the spills occurred. Mercury is a hazardous substance, as defined by Section 101(14) of CERCLA. The mercury was verified both by visual observation and real-time atmospheric screening with a Lumex mercury vapor analyzer. The observed

concentrations exceed the Agency for Toxic Substances and Disease Registry (ATSDR) action level for mercury vapor concentration of 1,000 ng/m<sup>3</sup>.

According to ATSDR, short-term exposure to high levels of mercury vapor can result in the following symptoms:

- Cough, sore throat
- Shortness of breath
- Chest pain
- Nausea, vomiting, diarrhea
- Increase in blood pressure or heart rate
- A metallic taste in the mouth
- Eye irritation
- Headache

Health effects caused by long-term exposure include:

- Anxiety
- Excessive shyness
- Anorexia
- Sleeping problems
- Loss of appetite
- Irritability
- Fatigue
- Forgetfulness
- Tremors
- Changes in vision
- Changes in hearing

Mercury left unmitigated will continue to release mercury vapors for a long period of time subjecting residents to inhalation exposures. Further, the mercury involved may spread through to the school that was attended by the children or into other residential properties if not mitigated.

ii.  YES  NO Actual or potential contamination of drinking water supplies or sensitive ecosystems.

iii.  YES  NO Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

iv.  YES  NO High Levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;

- v.  YES  NO Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
- vi.  YES  NO Threat of fire or explosion.
- vii.  YES  NO The availability of other federal or state response mechanisms to respond to the release;

No other Local, State, or Federal agency was in the position or had the resources to independently implement an effective response action. State (IDPH) and local authorities (CDPH) requested U.S. EPA assistance.

- viii.  YES  NO Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

**IV. ENDANGERMENT DETERMINATION**

Given the Site conditions, the nature of the suspected hazardous substances on-site, and the potential exposure pathways described in Section II and III above, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may have presented an imminent and substantial endangerment to public health, welfare, or the environment.

**V. Proposed Actions and Estimated Costs**

**A. Proposed Actions**

1. Proposed action description

The OSC has completed the following emergency removal actions to mitigate threats posed by the presence of flammable materials:

- Develop and implement a site health and safety plan;
- Determine extent of contamination of the hazardous substances on site;
- Secure, stage, sample, and characterize wastes;

√ Transport and dispose of all hazardous wastes, pollutants and contaminants at an EPA approved facility in accordance with EPA off-site rule 40 C.F.R. § 300.440;

The emergency response required 6 on-site working days to complete.

2. Contribution to remedial performance

No further action is required for this Site as this removal action completes the cleanup.

3. Engineering Evaluation / Cost Analysis

N/A

4. Applicable or Relevant and Appropriate Requirements

This cleanup was conducted as an emergency response. U.S. EPA verbally requested ARARs. Identified ARARs were complied with to the extent practicable.

All hazardous substances, pollutants, or contaminants removed off-site pursuant to this removal action for treatment, storage, and disposal were treated, stored, or disposed of at a facility in compliance, as determined by U.S. EPA, with the U.S. EPA Off-Site Rule, 40 C.F.R. § 300.440.

5. Post-Removal Site Control

The removal action was conducted in a manner not inconsistent with the NCP. In accordance with 40 C.F.R. §300.415(I), U.S. EPA will pursue appropriate arrangements for post-removal site controls to ensure the long-term integrity of the removal. Complete removal of the hazardous substances; however, is expected to eliminate the need for post-removal site controls.

6. Off-Site Rule

All hazardous substances, pollutants, or contaminants removed off-site pursuant to this emergency response for treatment, storage, and disposal were treated, stored, or disposed of at a facility in compliance with the U.S. EPA Off-Site Rule, 40 C.F.R. § 300.440.

## 7. Disproportionate Finding

The response actions described in this memorandum directly addressed the actual or threatened release at the Site of a hazardous substance, or of a pollutant, or of a contaminant, which may have posed an imminent and substantial endangerment to public health, welfare, or the environment. These response actions did not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

### B. Estimated Costs

The following cost estimates include costs associated with the emergency response action for purposes of creating a total project ceiling. The costs do not include any past or future investigation costs on the Site.

#### Regional Removal Allowance Costs

Cleanup Contractor Costs  
(Including 10 % contingency)

\$18,040

START Contractor Costs \$ 8,000

EPA \$ 4,000

**TOTAL, Removal Action  
Project Ceiling  
\$ 30,040**

## VI. EXPECTED CHANGE IN THE SITUATIONS SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the Site conditions, the nature of the hazardous substances documented on-site, and the potential exposure pathways to nearby populations described in Sections II and III, actual or threatened release of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, would have presented an imminent and substantial endangerment to public health, welfare, or the environment.

## VII. OUTSTANDING POLICY ISSUES

The following remaining policy issues are associated with the site:

None

## VIII. ENFORCEMENT

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recover are estimated to be \$48,563.<sup>1</sup>

$$(\$26,040 + \$4,000) + (\$30,040 \times 62.76\%) = \$48,893.00$$

For administrative purposes, information concerning the enforcement strategy for this site is contained in the Enforcement Confidential Addendum.

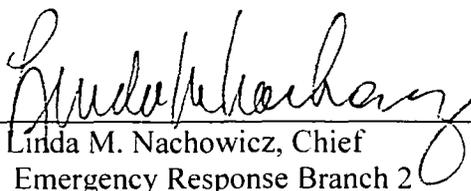
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<sup>1</sup> Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 27, 2008. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

**IX. RECOMMENDATION**

This decision document represents the selected remedy for the South Mozart Mercury Spill Site, Chicago, Illinois, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. Conditions at the Site met the NCP § 300.415 (b) (2) criteria for an emergency response and I recommend your approval.

The total emergency response project ceiling if approved will be \$26,040. Of this, an estimated \$18,040 may be used for cleanup contractor costs. You may indicate your decision by signing below.

APPROVE:  DATE: 3/31/11  
Linda M. Nachowicz, Chief  
Emergency Response Branch 2

DISAPPROVE: \_\_\_\_\_ DATE: \_\_\_\_\_  
Linda M. Nachowicz, Chief  
Emergency Response Branch 2

Enforcement Addendum

- Attachments:
1. Administrative Record Index
  2. Figure 1- Site Location
  3. Region 5 EJ Analysis
  4. Detailed Cleanup Contractor Estimate
  5. Independent Government Cost Estimate

cc: D. Chung, U.S. EPA, 5202-G  
(email: David Chung/DC/USEPA/US)  
M. Chezik, U.S. DOI, w/o Enf. Addendum, **w/o Enf. Addendum**  
(email: michael\_chezik@ios.doi.gov)

bcc:

BCC PAGE

(REDACTED 1 PAGE)

**ENFORCEMENT CONFIDENTIAL ADDENDUM**

**SOUTH MOZART MERCURY SPILL SITE  
CHICAGO, COOK COUNTY, ILLINOIS**

**MARCH 2011**

**(REDACTED 1 PAGE)**

**ENFORCEMENT CONFIDENTIAL**  
**NOT SUBJECT TO DISCOVERY**

# ATTACHMENT 1

U.S. ENVIRONMENTAL PROTECTION AGENCY  
REMOVAL ACTION

ADMINISTRATIVE RECORD  
FOR  
SOUTH MOZART STREET  
MERCURY SPILL SITE

CHICAGO, COOK COUNTY, ILLINOIS

ORIGINAL  
JANUARY 2011

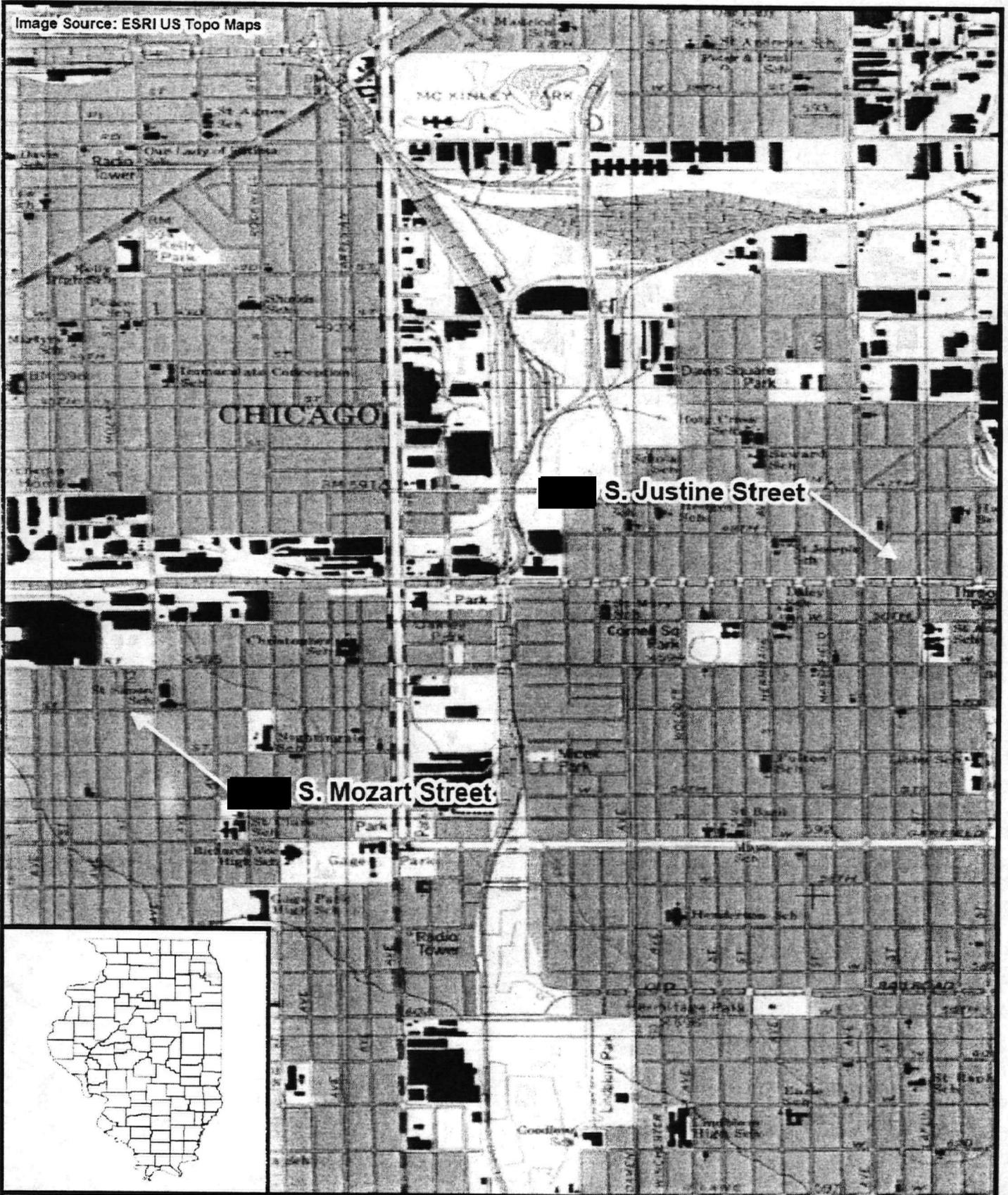
<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	09/03/09	ATSDR	Public	ToxFAQs for Mercury	2
2	10/07/09	Schlieger, B., U.S. EPA	Distribution List	Pollution Report (POLREP No. 1) Initial/Final for the South Mozart Mercury Spill Site	2
3	00/00/00	Schlieger, B., U.S. EPA	Nachowicz, L., U.S. EPA	Action Memorandum: Request for an Emergency Removal Action at the South Mozart Mercury Spill Site (PENDING)	17

**ATTACHMENT 2**

**FIGURE 1**

**SITE LOCATION  
SOUTH MOZART MERCURY SPILL SITE  
CHICAGO, COOK COUNTY, ILLINOIS  
March 2011**

Image Source: ESRI US Topo Maps



File D:\State of Illinois\ER1 Site Locator.mxd 04-Jan-11 10:28 m:\arcmap



**Legend**

0 2,000  
 Feet



Prepared for:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
 TDD: S05-0001-1011-017  
 DCN: 1287-



Prepared By:  
**WESTON SOLUTIONS, INC**

750 E. Bunker Court  
 Suite 500  
 Vernon Hills, Illinois 60061

**Figure 1**  
 Site Location Map  
 ER-Mozart Hg Spill  
 Chicago, Cook County, Illinois

# ATTACHMENT 3

## EJ ANALYSIS SOUTH MOZART MERCURY SPILL SITE CHICAGO, COOK COUNTY, ILLINOIS March 2011



**Figure 2.**  
South Mozart Street Site Map Showing EJ SEAT Values For Surrounding Area

**ATTACHMENT 3**

**SOUTH MOZART MERCURY SPILL SITE  
INDEPENDENT GOVERNMENT COST ESTIMATE  
CHICAGO, COOK COUNTY, ILLINOIS  
March 2011**

The estimated cleanup contractor costs necessary to complete the removal action at the South Mozart Street Mercury Spill Site are as follows:

ERRS Personnel	\$ 6,612.00
ERRS Equipment & T&D (Including G&A)	\$10,570.00
<b>SUBTOTAL</b>	<b>\$17,181.00</b>
5% Contingency	\$ 859.00
<b>TOTAL</b>	<b>\$18,040.00</b>

**ATTACHMENT 4**

**ATTACHMENT 5**

**INDEPENDENT GOVERNMENT COST ESTIMATE**

**SOUTH MOZART MERCURY SPILL SITE  
CHICAGO, COOK COUNTY, ILLINOIS**

**MARCH 2011**

**NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION**

**(REDACTED 1 PAGE)**